



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,001	06/15/2001	Per-Anders Kristian Lof	203198US-8CIP	7375

22850 7590 09/24/2009  
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
----------

NGUYEN, TAN D

ART UNIT	PAPER NUMBER
----------	--------------

3689

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

09/24/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

## Office Action Summary

**Application No.**

09/881,001

**Applicant(s)**

LOF ET AL.

**Examiner**

Tan Dean D. Nguyen

**Art Unit**

3689

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-16 and 18-30 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *I. Response to Amendment*

1. The amendment filed 4/6/09 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: In claim 15, the phrase "fulfilling a **prosecution** obligation of said renewable power production facility". There is no support for the term "prosecution" or "prosecution obligation" in the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. Claims 15-16, 18-30 (method) are pending. Claims 15, 18-19 and 22 have been amended. Claims 1-14 have been withdrawn. Claims 15-16, 18-30 are active and are rejected as followed. Claim 17 is canceled.

As of 4/6/09, independent method claim 15 is as followed:

Claim 15 (Currently Amended): A method for coordinating power output from a renewable power production facility with another power production facility so as to implement a virtual energy storage mechanism for the renewable power production facility, comprising steps of:

a) producing and applying to transmission lines a predetermined amount of electric power collectively provided by from the renewable power production facility and from said another power production facility, said renewable power production facility

Art Unit: 3689

applying a variable amount of electric power, and said another power production facility applying a controllable amount of electric power;

b) determining with a hardware processor that a produced amount of power ~~the variable amount~~ of power produced by the renewable power production facility deviates from a threshold by a predetermined quantity;

c) informing via digital communications said another power production facility of said predetermined quantity;

d) adjusting and applying to the transmission lines a power output of said another power production facility by an amount that corresponds with said predetermined quantity ~~so as to compensate~~ and compensating for any deviation from the threshold by the renewable power production facility and have a resultant total power produced by or on behalf of the renewable power production facility to be approximately at said threshold; and

e) keeping an account balance in a memory of an amount of energy, and subsequently fulfilling a prosecution obligation of said renewable power production facility and producing said amount of energy ~~to be later produced~~ by the another power production facility on behalf of the renewable power production facility, wherein said another power production facility serves as the virtual energy storage mechanism by releasing stored resources to ~~produce~~ and processing power ~~to cover~~ that covers a production shortfall by said renewable power production facility, and by increasing

Art Unit: 3689

potential energy capturing and storing resources at the another power production facility  
~~to offset~~ that offsets a production surplus by the renewable power production facility.

Note that for convenience, letters (a)-(e) are inserted before each step.

## II. Facts Finding

### 1) Term: threshold:

Main Entry: **thresh·old**

Function: *noun*

Date: before 12th century

**1** : the plank, stone, or piece of timber that lies under a door : SILL

**2 a** : GATE, DOOR **b (1)** : END, BOUNDARY; *specifically* : the end of a runway **(2)** : the place or point of entering or beginning : OUTSET <on the *threshold* of a new age>

**3 a** : the point at which a physiological or psychological effect begins to be produced <has a high *threshold* for pain>

**b** : a level, point, or value above which something is true or will take place and below which it is not or will not

### 2) the term: “prosecution”

Main Entry: **pros·e·cu·tion**

Function: *noun*

**1** : the act or process of prosecuting; *specifically* : the institution and continuance of a criminal suit involving the process of pursuing formal charges against an offender to final judgment

**2** : the party by whom criminal proceedings are instituted or conducted

**3 obsolete** : PURSUIT

Cite this page:

Art Unit: 3689

**MLA Style**

"threshold." *Merriam-Webster Online Dictionary*. 2009.

Merriam-Webster Online. 16 September 2009

<<http://www.merriam-webster.com/dictionary/threshold>>

**APA Style**

threshold. (2009). In *Merriam-Webster Online Dictionary*.

Retrieved September 16, 2009, from <http://www.merriam-webster.com/dictionary/threshold>

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 15-16, 18-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent a method claim must (1) be tied to another statutory class of invention (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (see at least *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). A method claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter.

To qualify as a § 101 statutory process, the claim should recite the particular machine or apparatus to which it is tied, for example by identifying the machine or apparatus that accomplishes the method steps, or positively reciting the subject matter

that is being transformed, for example by identifying the material that is being changed to a different state.

There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the **machine or transformation** must impose **meaningful limits on the method claim's scope** to pass the test. Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

Here, applicant's method steps fail the first prong of the new test because the claimed invention fails to set forth a particular machine that is specifically configured/programmed to carry out the claimed invention, i.e. "the processor automatically models the inputs and forms a ....". Specifically, the Examiner asserts that the current claim language can be interpreted that the user, is performing the claimed invention by inputting the "determining" step into the processor and manipulates the processor. Also, the only tie of a processor to the (b) "determining step" wherein the step does not appear to be critical to the claimed scope and therefore, it does not pass the test as indicated above. It appears that other more essential steps to the scope of the claimed invention such as:

(d) step of "adjusting and applying ..." and

(e) step of “keeping and account ...fulfilling a prosecution obligation ... and producing”,

are not tied to a particular machine such as the “hardware processor” of step (b) above.

Further, applicant’s method steps fail the second prong of the test because there is no transformation of the data. It is asserted that the data has not been transformed into another state or into another object.

***Claim Rejections - 35 USC § 112***

5. Claims 15-16 and 18-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1) In claim 15, step (b), the phrase “a produced amount of power produced by the renewable power production facility deviates from a threshold by a predetermined quantity” is vague for 2 reasons:

(1) it’s not clear what is the definition of the “a produced amount of power” or what it refers to? Is it the “deviated amount from a threshold” or the amount of power produced by the renewable power production (RPP) facility as shown in the first step (a)?

(2) the phrase “deviates from a threshold by a predetermined quantity” is also vague because RPP facility produces a **variable** amount of electric power, i.e. changes from 400 to 500 KWH constantly. A threshold and a predetermined quantity are normally considered as fixed number or amount. Therefore, a variable amount of



Art Unit: 3689

power generated from RPP facility can not be the difference between 2 fixed numbers as shown.

2) In claim 15, step (e), the phrase “in a memory of an amount of energy ... and producing said amount of energy..,” is vague because it’s not clear what system or facility associated with the “an amount of energy”? Is this a new or different amount of energy from the “amount of electric power” of step (a) or “a produced amount of power” of step (b)?

3) The phrase "a prosecution obligation of said renewable power production facility" is vague because it's not clear what this really means? Is it refers to an obligation for prosecuting a case or a task and what is the task or case?

4) It’s not clear what is the relationship between the last 2 steps?

5) Dep. claim 27 is vague because it depends on claim 17 which has been canceled.

6) Dep. claims 29-30 are vague because communication features such as “receiving a data message” or “informing other” normally do not further limit or associate with the step of management power output such as adjusting and applying to the transmission lines a power output of the power production facility.

### ***Claim Objections***

6. Claim 27 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

dependent form, or rewrite the claim(s) in independent form. Claim 27 depends on claim 17 which has been canceled.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. **Claims 15-16, 18-30 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JAUNICH (US 6,605,880).**

**As for independent method claim 15**, in a similar method for coordinating power output between several power generators/producers wherein one of the power generator/producer is a renewable power (wind energy generator), **JAUNICH** discloses the steps of:

(a) producing and applying to transmission lines a predetermined amount of electric power collectively provided by the renewable power production facility and from said other another power production facility, said renewable power production facility applying a variable about of electric power, and said another power production facility applying a controllable amount of electric power;

{see Fig. 1, “wind generator 16”, “secondary generator 28”, “power transmission system 24”, “utility company 12”, col. 1, lines 10-15, 48-58, col. 2, lines 1-40, col. 3, lines 26-67, col. 4, lines 20-45}:

b) determining with a hardware processor that a produced amount of power of power produced by the renewable power production facility deviates from a threshold (a level, point, or value above which something is true or will take place and below which it is not or will not), by a predetermined quantity;

{see Fig. 1, col. 2, lines 8-40, col. 3, lines 3-50, col. 4, lines 5-67 "... control of ...may be done automatically by **a computer system**..."}

c) informing via digital communications said another power production facility of said predetermined quantity;

{see Fig. 1, col. 2, lines 8-40, col. 4, lines 5-45}

d) adjusting and applying to the transmission lines a power output of said another power production facility by an amount that corresponds with said predetermined quantity and compensating for any deviation from the threshold by the renewable power production facility and have a resultant total power produced by or on behalf of the renewable power production facility to be approximately at said threshold; and

{see Fig. 1, col. 4, lines 5-45}

e) keeping in a memory of an amount of energy (readings from meters), and subsequently fulfilling a prosecution obligation of said renewable power production facility and producing said amount of energy by the another power production facility on behalf of the renewable power production facility, wherein said another power production facility serves as the virtual energy storage mechanism by releasing stored resources to and processing power that covers a production shortfall by said renewable

power production facility, and by increasing potential energy capturing and storing resources at the another power production facility that offsets a production surplus by the renewable power production facility.

{see Fig. 1, col. 2, lines 35-40, "...wind company 10 and utility company 12 communicate over communication link 14 and **agree on a desired quantity of electric power that a wind company will provide**. Wind generator is the primary source for the electric power... **the total number of megawatts that wind company 10 has agreed to produce...**", and

col. 4, lines 5-65 "**reading from meter ... be done automatically by a computer system... utility company 12 pays wind company 10, ... for electric power generated by wind generator 16... consumer 40, in turn, pays utility company 12, as shown by cash flow 48, for the electric power consumed... wind company 10 can generate electric power over and above **what is required by utility company to sell on the open market ... consumers ... purchase electric energy that was generated by a more environmentally friendly means...****".

As for the phrase "an account balance" in step (e), this is inherently included in the teaching of step (e) of JAUNICH (meter readings ...by a computer system) in order to provide **proper billing** (payment for energy generated/received) by the utility company as well as meeting the desired quantity of electric power that a wind company will provide based on an agreement with the utility company in order to provide friendly energy desired by the consumer.

As for the phrase “subsequent fulfilling an obligation by the renewable power production” in step (e), this is inherently included in the teaching of step (e) of JAUNICH (meter readings ...by a computer system) in order to **meet the desired quantity (total number of megawatts) of electric power that a wind company has agreed to produce based on an agreement** with the utility company in a certain time frame (period) and in order to provide friendly energy desired by the consumer.

As for the term “a threshold”, this appears to be equivalent to the terms such “agreed amount”, or “a required amount”, or “what is required”, “levels of electricity output” as taught by JAUNICH on cols. 2 and 4. Alternatively, the use of other similar terms such “agreed amount”, or “a required amount”, or “what is required”, “levels of electricity output” as shown on cols. 2 and 4, would have been obvious as mere using other similar terms to achieve similar results.

As for the limitation of “another power production facility serves as the virtual energy storage mechanism”, this is inherently included in the teachings of JAUNICH as cited above.

JAUNICH appears to teach the claimed invention except for explicitly disclosing the amended language of “a prosecution obligation” in step (e). However, this language appears to be related to issue of meeting the “**agreement**” (obligation) or “**requirement**” to the “agreed amount”, or “a required amount”, or “what is required”, as shown on cols. 2 and 4, therefore, the use of other similar terms such as “obligation” would have been obvious as mere using other similar terms to achieve similar results.

As for dep. claim 16 (part of 15 above), which deals with the type of renewable power, i.e. wind turbine, this is taught in Fig. 1, cols 1, lines 53-55, col. 2, lines 8-41.

As for dep. claim 18 (part of 15 above), which deals with keeping account balance parameters, allowing for fluctuations in balance, this is inherently included in the teaching of JAUNICH as shown on col. 4, lines 50-67, wherein wind energy generator can generate electric power over and above what is required by utility company to sell on the open market due to lower price that is paid for base power generated by wind energy. The keeping an account balance is merely data management and is inherently included in the teaching of JAUNICH or would have been obvious as long the system can physically afford it and this is taught in col. 4, lines 50-67 above. Moreover, this is an "allow" clause: "to allow modification of ..." basically reads "permits/allows the user to do a task" and wherein the "task" is "modification of the information". In other word, "permitting/allowing an action" is different from actually "performing an action" and thus having no patentable weight. "Allowing", "causing" or "permitting" only requires "serving as the reason" for an "action" though, not necessarily performing the action. This can be done by issuing commands or orders, or entering into contracts. So even though the entity may do something later with the equipment that is in the technological arts, the positively recited steps of merely "causing" can be done without operating the equipment and is not in the technological arts. Variations on this theme have been seen in other cases, using terms like "allowing" or "permitting" an action, e.g. "allowing a user to search a database". Again, these functions (elements or steps) are distinct from actually doing the action, e.g.

"modifying the input data..." and the current claim language has no such function or structural element calling for "configured to modify" or "step/means for modifying".

As for dep. claims 19-22 (part of 15 above), which basically deal with well known energy price and delivery optimization of renewable power sources, i.e. offering a sale a unit of power (amount), price negotiation, time of delivery, etc., when market price is favorable since regenerative electric power normally has **lower price** than fossil fuel electric power and more environmentally friendly energy, these are fairly taught in JAUNICH col. 2, lines 6-40, col. 3, lines 52, and col. 4, lines 55-67: "... **lower price ... by wind energy ... wind company 10 can generate electric power over and above what is required by utility company to sell on the open market ... consumers ... purchase electric energy that was generated by a more environmentally friendly means...**".

As for dep. claim 23 (part of 15/21 above), which deals with well known general or specific communication exchange upon an event, i.e. notifying an operator of the wind power production facility upon selling a unit of power, etc., this is taught on col. 2, lines 1-40, col 3, lines 5-45. The communication of any other events related to energy generation and marketing/selling would have been obvious as mere applying the same communication exchange to any other events if desired. Note that the selection a known step on the basis of its suitability for the intended use as a matter of obvious design choice is within the general skill of a skilled artisan and/or would have been obvious. *In re Leshin*, 125 USPQ 416.



As for dep. claim 24 (part of 15/21 above), which deals with well known electrical energy producing and marketing (selling) management parameters, i.e. obtaining a transmission rights for transferring of power output, this is inherently included in the teachings of JAUNICH as shown on col. 1, lines 53-57, col. 2, lines 4—67, col. 3, lines 27-50, col. 4, lines 5-65. Note that JAUNICH teaches the selling of renewable power over and above what is required by utility company to sell on the open market and to other regions to allow consumers located in other regions of the country the opportunity to purchase electric energy that was generated by a more environmentally friendly means, therefore, fundamental engineering issue such as transmission grid capabilities, obtaining a right, etc., must be evaluated in advance before a selling event can be taken place.

As for dep. claim 25 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. offering meteorological data along with renewable power output delivery data, this is taught in JAUNICH as shown on col. 3, lines 5-26.

As for dep. claim 26 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. offering meteorological data along with renewable power output delivery data, this is taught in JAUNICH as shown on col. 3, lines 5-26.

As for dep. claim 27 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. selling a predetermined amount of energy, this is taught in JAUNICH as shown on col. 3, lines and col. 4, lines 55-67.

As for dep. claims 28-30 (part of 15 above), which basically deal with load controlling/adjusting parameters using communication parameters, i.e. data message or informing of issues, these are fairly taught in Fig. 1, col. 2, lines 8-45, col. 3, lines 5-35, col. 4, lines 5-65.

**12. Dependent claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAUNICH as applied to claims 15-16, 18-21 above, and further in view of Article "Short-Term Wind Forecasting".**

The teachings of JAUNICH is cited above.

In a similar method for coordinating power output between several power generators/producers wherein one of the power generator/producer is a renewable power (wind energy generator), **Article "Short-Term Wind Forecasting"** discloses the well known issue of renewable power management in the energy market such as wind plant owners and operators can maximize the value of the energy they produce, for example, by contracting to sell excess wind power to others when available, or by purchasing in advance on the spot market to cover shortfalls in **contractual obligations** in order to persuade utility companies and other power suppliers and purchasers to increase their use of wind energy and raise wind capacity payments {see pager 1062, below "Introduction", left hand column.

Article "Short-Term Wind Forecasting" also teaches offering meteorological data along with renewable power output delivery data on pages 1064-1065 under "The E & Wind Interface" and "The Benefits of Wind Forecasting" to display **confidence intervals** and likely range of deviation – information that may be of **critical value** to utility plant

dispatchers and energy and transmission traders seeking to **optimize their strategies**.

The availability of timely, useful, and accurate wind forecasts **significantly increases the value of wind energy** to wind plant owners, utilities companies, and their customers.

Therefore, it would have been obvious to a person having ordinary skill in the art (herein after as "PHOSITA") at the time of the invention was made to modify the system of JAUNICH by offering meteorological data along with renewable power output delivery data and estimating a likelihood of delivery using said data as taught by Article "Short-Term Wind Forecasting" for at least one of the benefits cited above which is providing critical value to utility plant dispatchers and energy and transmission traders seeking to **optimize their strategies**. The availability of timely, useful, and accurate wind forecasts **significantly increases the value of wind energy** to wind plant owners, utilities companies, and their customers.

As for dep. claim 26 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. offering meteorological data along with renewable power output delivery data, this is taught in JAUNICH as shown on col. 3, lines 5-26. This is also taught in Article "Short-Term Wind Forecasting" pages 1064-1065 under "The E & Wind Interface" and "The Benefits of Wind Forecasting".

13. **Claims 15-16, 18-30 are rejected (2<sup>nd</sup> time) under 35 U.S.C. 103(a) as obvious over JAUNICH (US 6,605,880) in view (2) HASEGAWA ET AL (US 6,563,234) and (3) Article "Short-term Wind Forecasting".**

**As for independent method claim 15**, the teaching of JAUNICH is cited above. JAUNICH fairly teaches the claimed invention except for explicitly disclosing the phrase "obligation" by the renewable power production" in step (e) and a type of a produced amount of power produced by the renewable power production facility that deviates from a threshold, such as voltage, as shown in step (b).

In a similar method for coordinating power output between several power generators/producers wherein one of the power generator/producer is a renewable power (wind energy generator), **Article "Short-Term Wind Forecasting"** discloses the well known issue of renewable power management in the energy market such as wind plant owners and operators can maximize the value of the energy they produce, for example, by contracting to sell excess wind power to others when available, or by purchasing in advance on the spot market to cover shortfalls in **contractual obligations** in order to persuade utility companies and other power suppliers and purchasers to increase their use of wind energy and raise wind capacity payments {see pager 1062, below "Introduction", left hand column.

Therefore, it would have been obvious to a person having ordinary skill in the art (herein after as "PHOSITA") at the time of the invention was made to modify the system of JAUNICH by contracting to sell excess wind power to others when available, or by purchasing in advance on the spot market to cover shortfalls in contractual obligations

as taught by Article "Short-Term Wind Forecasting" as taught by Article "Short-Term Wind Forecasting" in order to persuade utility companies and other power suppliers and purchasers to increase their use of wind energy and raise wind capacity payments.

In a similar method for coordinating power output between several power generators/producers wherein one of the power generator/producer is a renewable power (wind energy generator), **HASEGAWA ET AL** discloses the steps of:

a) producing and applying to transmission lines a predetermined amount of electric power collectively provided by from the renewable power production facility and from said another power production facility, said renewable power production facility applying a variable amount of electric power, and said another power production facility applying a controllable amount of electric power;

{see Figs. 1, 5, col. 2, lines 10-65, col. 3, lines 5-65, col. 5, lines 1-35}

b) determining with a hardware processor that a produced amount of power ~~the variable amount~~ of power produced by the renewable power production facility deviates from a threshold by a predetermined quantity;

{see Figs. 1, 2, 3, cols. 5-6, col. 7, lines 1-10}

c) informing via digital communications said another power production facility of said predetermined quantity;

{see Figs. 2, 3, 5, cols. 5-6}

d) adjusting and applying to the transmission lines a power output of said another power production facility by an amount that corresponds with said predetermined quantity ~~so as to compensate~~ and compensating for any deviation from the threshold by the renewable power production facility and have a resultant total power produced by or on behalf of the renewable power production facility to be approximately at said threshold.

{see Figs. 2, 3, 5, cols. 5-6}

The system of HASEGAWA ET AL provides a power system **stabilization system** employing a rechargeable battery system that have the advantageous features of rapidly preventing a customer from significantly fluctuating in load and preventing power generation equipment from providing an output significantly fluctuating with weather conditions, such as wind power, to **reliably supply power** and maintained a predetermined voltage {see col. 2, lines 65}. Therefore, it would have been obvious to a person having ordinary skill in the art (herein after as "PHOSITA") at the time of the invention was made to modify the system of JAUNICH/Article "Short-Term Wind Forecasting" by including the power system **stabilization system** employing a rechargeable battery system of HASEGAWA ET AL to obtain at least one of the benefit cited by HASEGAWA ET AL above which is rapidly preventing a customer from significantly fluctuating in load and preventing power generation equipment from providing an output significantly fluctuating with weather conditions, such as wind power, to **reliably supply power** and maintained a predetermined voltage {see col. 2, lines 65}.

Note that the system of HASEGAWA ET AL also teaches the concept of the another power production facility serves as the virtual energy storage mechanism by releasing stored resources to and processing power that covers a production shortfall by said renewable power production facility, and by increasing potential energy capturing and storing resources at the another power production facility that offsets a production surplus by the renewable power production facility, as shown in Figs. 1, 5, 6 and 7.

As for dep. claim 16 (part of 15 above), which deals with the type of renewable power, i.e. wind turbine, this is taught in Fig. 1, cols 1, lines 53-55, col. 2, lines 8-41.

As for dep. claim 18 (part of 15 above), which deals with keeping account balance parameters, allowing for fluctuations in balance, this is inherently included in the teaching of JAUNICH as shown on col. 4, lines 50-67, wherein wind energy generator can generate electric power over and above what is required by utility company to sell on the open market due to lower price that is paid for base power generated by wind energy. The keeping an account balance is merely data management and is inherently included in the teaching of JAUNICH or would have been obvious as long the system can physically afford it and this is taught in col. 4, lines 50-67 above. Moreover, this is an “allow” clause: “to allow modification of ...” basically reads “permits/allows the user to do a task” and wherein the “task” is “modification of the information”. In other word, “permitting/allowing an action” is different from actually “performing an action” and thus having no patentable weight. “Allowing”, “causing” or “permitting” only requires “serving as the reason” for an “action” though, not

necessarily performing the action. This can be done by issuing commands or orders, or entering into contracts. So even though the entity may do something later with the equipment that is in the technological arts, the positively recited steps of merely "causing" can be done without operating the equipment and is not in the technological arts. Variations on this theme have been seen in other cases, using terms like "allowing" or "permitting" an action, e.g. "allowing a user to search a database". Again, these functions (elements or steps) are distinct from actually doing the action, e.g. "modifying the input data..." and the current claim language has no such function or structural element calling for "configured to modify" or "step/means for modifying".

As for dep. claims 19-22 (part of 15 above), which basically deal with well known energy price and delivery optimization of renewable power sources, i.e. offering a sale a unit of power (amount), price negotiation, time of delivery, etc., when market price is favorable since regenerative electric power normally has **lower price** than fossil fuel electric power and more environmentally friendly energy, these are fairly taught in JAUNICH col. 2, lines 6-40, col. 3, lines 52, and col. 4, lines 55-67: "... **lower price ... by wind energy ... wind company 10 can generate electric power over and above what is required by utility company to sell on the open market ... consumers ... purchase electric energy that was generated by a more environmentally friendly means...**".

As for dep. claim 23 (part of 15/21 above), which deals with well known general or specific communication exchange upon an event, i.e. notifying an operator of the wind power production facility upon selling a unit of power, etc., this is taught on col. 2,



lines 1-40, col 3, lines 5-45. The communication of any other events related to energy generation and marketing/selling would have been obvious as mere applying the same communication exchange to any other events if desired. Note that the selection a known step on the basis of its suitability for the intended use as a matter of obvious design choice is within the general skill of a skilled artisan and/or would have been obvious. *In re Leshin*, 125 USPQ 416.

As for dep. claim 24 (part of 15/21 above), which deals with well known electrical energy producing and marketing (selling) management parameters, i.e. obtaining a transmission rights for transferring of power output, this is inherently included in the teachings of JAUNICH as shown on col. 1, lines 53-57, col. 2, lines 4—67, col. 3, lines 27-50, col. 4, lines 5-65. Note that JAUNICH teaches the selling of renewable power over and above what is required by utility company to sell on the open market and to other regions to allow consumers located in other regions of the country the opportunity to purchase electric energy that was generated by a more environmentally friendly means, therefore, fundamental engineering issue such as transmission grid capabilities, obtaining a right, etc., must be evaluated in advance before a selling event can be taken place.

As for dep. claim 25 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. offering meteorological data along with renewable power output delivery data, this is taught in JAUNICH as shown on col. 3, lines 5-26. Article "Short-Term Wind Forecasting" also teaches offering meteorological data along with renewable power output delivery data on pages 1063-

1065 under “The E & Wind Interface” and “The Benefits of Wind Forecasting” to display **confidence intervals** and likely range of deviation – information that may be of **critical value** to utility plant dispatchers and energy and transmission traders seeking to **optimize their strategies**. The availability of timely, useful, and accurate wind forecasts **significantly increases the value of wind energy** to wind plant owners, utilities companies, and their customers.

As for dep. claim 26 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. offering meteorological data along with renewable power output delivery data, this is taught in JAUNICH as shown on col. 3, lines 5-26. This is also taught in Article "Short-Term Wind Forecasting" pages 1064-1065 under “The E & Wind Interface” and “The Benefits of Wind Forecasting”.

As for dep. claim 27 (part of 15/21 above), which deals with energy producing and marketing (selling) management parameters, i.e. selling a predetermined amount of energy, this is taught in JAUNICH as shown on col. 3, lines and col. 4, lines 55-67.

As for dep. claims 28-30 (part of 15 above), which basically deal with load controlling/adjusting parameters using communication parameters, i.e. data message or informing of issues, these are fairly taught in Fig. 1, col. 2, lines 8-45, col. 3, lines 5-35, col. 4, lines 5-65.

### ***Response to Arguments***

14. Applicant's arguments with respect to claims 15-16, 18-30 have been considered but are moot in view of the new ground(s) of rejection which are due to applicant's major amendment of April 06, 2009.

***Conclusion***

15. **Applicant's amendment on April 6, 2009, necessitated the new ground(s) of rejection presented in this Office action.** Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

No claims are allowed.

Art Unit: 3689

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct@uspto.gov>. Should you have any questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

In receiving an Office Action, it becomes apparent that certain documents are missing, e. g. copies of references, Forms PTO 1449, PTO-892, etc., requests for copies should be directed to Tech Center 3600 Customer Service at (571) 272-3600, or e-mail [CustomerService3600@uspto.gov](mailto:CustomerService3600@uspto.gov).

Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday.

Should I be unavailable during my normal working hours, my supervisor Janice Mooneyham can be reached at (571) 272-6805.

The main FAX phone numbers for formal communications concerning this application are (571) 273-8300. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

/Tan Dean D. Nguyen/  
Primary Examiner, Art Unit 3689